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Achieving reduction in catheter-related blood stream infection markers

Stage 5 chronic kidney disease rates reached 360 million population in 2006 (USRDS, 2008). Poor vascular access and widespread hemodialysis (HD) catheters increase risk for catheter-related blood stream infections (Manierski & Besarab, 2006). Death from sepsis in HD patients is 100 times that of the general population (2006).

Dramatically reduce catheter-related blood stream infection (CR-BSI) markers in people diagnosed with renal and metabolic disease, integrating LEAN processes to maximize adherence to evidence-based bundle.

In a large community hospital, data analysis suggested increased CR-BSI markers. CNS interviews with direct care nurses revealed nursing knowledge deficits with Kidney Disease Outcomes Quality Initiative (KDOQI) guidelines for accessing HD catheters. A field study conducted by a CNS and infection control practitioner revealed multiple, non-value-added steps in a complex work environment negatively influencing adherence to evidence-based practice.

Using LEAN processes influenced by direct care nurses, supplies key to compliance were trialed with overwhelming success and satisfaction. As a result, compartmented bins were installed in all patient rooms. KDOQI guidelines for accessing HD catheters were integrated into policy and were reviewed with direct care and hemodialysis staff, and supplies for povidone iodine soaking were made available.

Introduction

Purpose

Methods



Compartmented bins installed in all patient rooms

Results



Total unit-based NIM for CR-BSI, 2007-2010

Implications

LEAN processes can be easily introduced in complex work environments such as acute care hospitals. LEAN processes encourage staff to become involved with work area improvements, creating changes that are sustainable while spreading and adopting EBP at the bedside (Herring, 2006).

References

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